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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Patrick N. Gilles et al.

Serial No.: 09/727,030

Filed: November 30, 2000

For: SINGLE NUCLEOTIDE  
POLYMORPHIC DISCRIMINATION BY  
ELECTRONIC DOT BLOT ASSAY ON  
SEMICONDUCTOR MICROCHIPS

Group Art Unit: Not yet assigned

Examiner: Not yet assigned

## INFORMATION DISCLOSURE STATEMENT

Box Non-Fee  
Commissioner for Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. The accompanying Form PTO-1449 provides a listing of documents that may be relevant to the subject application.

It is requested that the Examiner fully consider the art cited in the accompanying Form 1449, initial the left-most column of the form adjacent each cited reference, and return a copy for

OC-75342.1

CERTIFICATE OF MAILING  
(37 C.F.R. §1.10)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as 'Express Mail Post Office To Addressee' in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

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Applicants' records. It is further requested that the art be cited on the cover of any patent issuing from the subject application.

In accordance with §1.97(d), this Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits of the above-identified application, and therefore no fee is required. If a first Office Action has been mailed, then please enter this Information Disclosure Statement and charge Lyon & Lyon's Deposit Account No. **12-2475** for any necessary fees.

This statement should not be construed as a representation that more material information does not exist or that an exhaustive search of the relevant art has been made. Nor does this statement constitute an admission by Applicants or Applicants' agent that the information provided herein is necessarily prior art to Applicants' invention. Moreover, Applicants reserve the right to establish the patentability of the claimed invention over any of the listed documents should they be applied there-against as references.

Respectfully submitted,

LYON & LYON LLP

Dated: February 28, 2001

By: 

Patrick S. Eagleman  
Reg. No. 44,665

PSE/ktl

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Enclosures: 36 Prior Art References

FORM PTO-1449

LIST OF PATENTS AND OTHER REFERENCES FOR APPLICANT'S  
INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

259/163

SERIAL NO.

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APPLICANT

Patrick J. Gilles, et al.

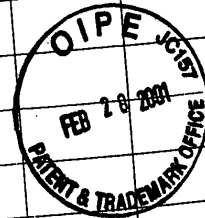
FILING DATE:  
11/30/2000

GROUP:

Not Yet Assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILI DA
	AA	3,950,738 ✓	4/1976	Hayashi et. al.			
	AB	3,995,190 ✓	11/1976	Salgo			
	AC	4,283,773 ✓	8/1981	Doughton et al.			
	AD	4,563,419 ✓	1/1986	Ranki, et al.			
	AE	4,580,895 ✓	4/1986	Patel			
	AF	4,584,075 ✓	4/1986	Goldstein et al.			
	AG	4,594,135 ✓	6/1986	Goldstein			
	AH	4,751,177 ✓	6/1988	Stabinsky			
	AI	4,787,963 ✓	11/1988	MacConnell			
	AJ	4,807,161 ✓	2/1989	Comfort et al.			
	AK	4,816,418 ✓	3/1989	Mack et al.			
	AL	4,822,566 ✓	4/1989	Newman			
	AM	4,828,979 ✓	5/1989	Klevan et al.			
	AN	4,908,112 ✓	3/1990	Pace			
	AO	5,063,081 ✓	11/1991	Cozzette et al.			
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	AV	5,143,854 ✓	9/1992	Pirung et al.			
	AW	5,164,319 ✓	11/1992	Hafemann et al.			



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Information Disclosure Statement - Section 9 PTO-1449

**LIST OF PATENTS AND OTHER REFERENCES FOR APPLICANT'S  
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Not Yet Assigned

	AX	5,166,063 ✓	11/1992	Johnson			
	AY	5,200,051 ✓	4/1993	Cozzette et al.			
	AZ	5,202,231 ✓	4/1993	Drmanac et al.			
	BA	5,219,726 ✓	6/1993	Evans			
	BB	5,227,265 ✓	7/1993	DeBoer et al.			
	BC	5,234,566 ✓	8/1993	Osman et al.			
	BD	5,242,797 ✓	9/1993	Hirschfeld			
	BE	5,304,487 ✓	4/1994	Wilding et al.			
	BF	5,312,527 ✓	5/1994	Mikkelsen et al.			
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	BH	5,434,049 ✓	7/1995	Okano et al.			
	BI	5,436,129 ✓	7/1995	Stapleton			
	BJ	5,445,525 ✓	9/1995	Broadbent et al.			
	BK	5,464,517 ✓	11/1995	Hjertén et al.			
	BL	5,468,646 ✓	11/1995	Mattingly et al.			
	BM	5,516,698 ✓	5/1996	Begg et al.			
	BN	5,527,670 ✓	6/1996	Stanley			
	BO	5,552,270 ✓	9/1996	Khrapko et al.			
	BP	5,593,838 ✓	1/1997	Zanzucchi et al.			
	BQ	5,605,662 ✓	2/1997	Heller et al.			
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	BS	5,653,939 ✓	8/5/1997	Hollis et al.			
	BT	5,660,701 ✓	8/26/1997	Grushka et al.			
	BU	5,681,751 ✓	10/1997	Begg et al.			
	BV	5,750,015 ✓	5/1998	Soane et al.			



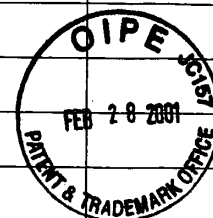
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	<b>APPLICANT:</b> Patrick N. Gilles, et al.	
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	BW	5,770,365 ✓	6/1998	Lane et al.			
	BX	5,780,233 ✓	7/1998	Guo et al.			
	BY	5,849,489 ✓	12/1998	Heller			
	BZ	5,853,993 ✓	12/1998	Dellinger et al.			
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	CG	6,071,394 ✓	6/2000	Cheng et al.			
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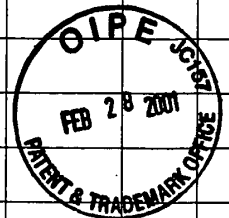


FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES	TRANSLATION NO
	CI	0228075	8/1987	EP (Dattagupa et al.)				
	CJ	2247889	3/1992	GB (Stanley)				
	CK	WO95/07363	3/1995	PCT (Konard)				
	CL	WO90/01564	2/1990	PCT (Adams et al.)				
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	CQ	WO88/08528	11/1988	PCT (Stanbro, et al.)				
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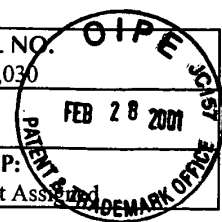
	CS	WO98/28444	7/1998	PCT (Mirzabekov, et a.)				
	CT	WO97/12030	4/1997	PCT (Heller, et al.)				
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DL	Anderson and Young, "Quantitative Filter Hybridization," <u>Nucleic Acid Hybridization - A Practical Approach</u> , Eds. B.D. Hames and S.J. Higgins (Washington, D.C.: IRL Press 1985) pp. 73-111	
DM	Bains, "Setting a Sequence to Sequence a Sequence," <u>Bio/Technology</u> , 10:757-758 (1992)	
DN	Barinaga, "Will 'DNA Chip' Speed Genome Initiative?," <u>Science</u> , 253:1489 (1991)	
DO	Beattie et al., "Genosensor Technology," <u>The 1992 San Diego Conference: Genetic Recognition</u> , pp 1-5 (Nov. 1992)	

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DP	Beltz et al., "Isolation of Multigene Families and Determination of Homologies by Filter Hybridization Methods," <u>Methods in Enzymology</u> , 100:266-285 (1983)
DQ	Brown et al. "Electrochemically Induced Adsorption of Radio-Labelled DNA on Gold and HOPG Substrates for STM Investigations." <u>Ultramicroscopy</u> , 38 1991, 253-264
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EC	Mathews, Kricka. "Analytical Strategies For The Use of DNA Probes." <u>Analytical Biochemistry</u> , 169, 1988, 1-25
ED	Palecek. "New Trends in Electrochemical Analysis of Nucleic Acids." <u>Bioelectrochemistry and Bioenergetics</u> , 20, 1988, 179-194
EE	Ranki et al., "Sandwich Hybridization as a Convenient Method for the Detection of Nucleic Acids in Crude Samples," <u>Gene</u> , 21:77-85 (1983)
EF	Saiki, "Amplification of Genomic DNA," <u>PCR Protocols: A Guide to Methods and Applications</u> , (Academic Press, Inc. 1990), pp 13-20
EG	Southern et al., "Analyzing and Comparing Nucleic Acid Sequences by Hybridization to Arrays of Oligonucleotides Evaluation Using Experimental Models," <u>Genomics</u> , 13:1008-1017 (1992)
EH	Sosnowski et al. "Rapid determination of single base mismatch mutations in DNA hybrids by direct electric field control," <u>Proc. Natl. Acad. Sci. USA</u> Vol. 94, pp. 1119-1123, February 1997 Biochemistry
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EJ	Wallace et al., "Hybridization of Synthetic Oligodexribonucleotides to $\phi$ x 174 DNA: The Effect of Single Base Pair Mismatch," <u>Nucleic Acid Res.</u> , 6:3543-3557 (1979)
EK	Washizu, "Electrostatic Manipulation of Biological Objects," <u>Journal of Electrostatics</u> , 25:109-123 (1990)
EL	Washizu and Kurosawa, "Electrostatic Manipulation of DNA in Microfabricated Structures," <u>IEEE Transactions on Industry Applications</u> , 26:1165-1172 (1990)

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